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Ré-SyPiEx
Research and development network on Extensive Fish farming in Western and Central Africa

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1 Introduction

Extensive fish farming has proven to be an advantage for small-scale farms. Requiring little cash, this activity better valorizes the existing production factors and agricultural byproducts. It also reduces the food expenses, increases the farm income and improves the diet of rural households. In Africa, the economic impact of this fish farming system in rural area tends to be under-estimated and insufficiently taken into account by the national development plans where financial and human resources are predominantly targeted at the medium or large-scale commercial aquaculture. Without questioning these choices, a more balanced perspective is needed.
The main objective of the RéSyPiex project is to make policy-makers aware that the "traditional" or extensive systems can be also driven by the market. Supported by PARRAF (Programme Supporting Research Networks in Africa), this network of various West and Central African research institutions involved in aquaculture has been initiated in 2011 by the research project "Ecological intensification of extensive family fish farming systems in West and Central Africa by the analysis of the innovation processes - extensive fish farming systems" (SyPiEx) - funded by the CORAF / WECARD. The research studies have been anchored in the development through NGO partnerships, including the APDRA – Pisciculture paysanne NGO. This presentation outlines the activities conducted by the research network and the stakes for the development of rural fish farming

2 Activities

The network teams involved in the network have strengthened their AIR4D capacity. They conducted a first literature review of previous and ongoing work to analyze the social, environmental and economic impacts of family fish farming systems in Western and Central Africa. The network also promoted the implementation of regional research and education collaborative programmes, leading to students, researchers and teachers exchanges.

Better describe to better promote the SyPiEx
The classic fish culture introduced in sub-Saharan Africa for decades has difficulty develop despite the efforts of the technical and financial partners on the continent. However, systems worn by family farms adopted by most local producers play an important role in the diversification of production and provide additional income to farmers. However, this form of farming in rural areas and in particular, the extensive aquaculture systems are poorly described. The regional literature reviews on SyPiEx in each country (Table 1), will help to publish policy notes in order to facilitate decision making in the fields of SyPiEx in West Africa and Central.

Table 1. Literature review on pisciculture and training in aquaculture in different countries of the network in West and Central Africa

	Literature Review	Description
1	National syntheses of extensive fish farming systems	National Study Report (Benin, Cameroon and Ivory Coast)
2	National syntheses of aquaculture training in different network countries	Database countries (Benin, Cameroon and Ivory Coast)
3	Regional synthesis on extensive fish farming systems	Regional Study Report on extensive fish farming systems in West and Central Africa

Research and development in extensive fish farming systems: AIR4D approach

Diversity of choices and practices both in terms of the organization, breeding systems and their integration modalities have enabled the development of spontaneous innovation by fish farmers. Technical choices are made by producers from innovations that have demonstrated their efficiency in the local context. On this basis, the actual constraints to overcome to successfully lead intensification are identified and assumptions are developed with producers and all stakeholders in the innovation platform. The prioritization of constraints led to the identification three major researches related to (1): Access to property in the context of SyPiEx; (2): Farm and economic optimization of SyPiEx (3): Optimized fingerlings production in SyPiEx.

Promote the training of students through south-south mobility

Students involved in the different motilities are supervised by supervisors from different teams (for sending and receiving) thus improving the level of training of students and facilitates research partnerships between different laboratories. During 2014, 10 students involved in the network teams have benefited from mobility grants for realization of courses related to one of three cross-cutting themes identified in West Africa and Central Regions (Table 2).

Table 2. Mobility of students in different network laboratories

Countries	Numbers of students	Study level	Coming Laboratory	Country home for mobility	Home Laboratories
Benin	5	Master	URAEAq/FA (03) and FSA-UAC (02)	Cameroun (03)- Ivory Coast (02)	C.R.O (02) and UR SPGA/UPGC (01)
Cameroun	2	Master	ISH-UD (01) and FASA-UDs (01)	Benin	URAEAq/FA
Ivory Coast	3	Master	C.R.O (02) and UPGC (01)	Benin	URAEAq/FA

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